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09/623,681	09/07/2000	David Fisher	540-231	6218

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Nixon & Vanderhye  
8th Floor  
1100 North Glebe Road  
Arlington, VA 22201-4714

EXAMINER

BRYANT, DAVID P

ART UNIT	PAPER NUMBER
3726	

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.  
09/623,681

Applicant(s)

FISHER et al.

Examiner  
David Bryant

Art Unit  
3726



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on 5/20/02

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

4)  Claim(s) 1-6 and 8-12 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-6 and 8-12 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1)  Notice of References Cited (PTO-892)

4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)

5)  Notice of Informal Patent Application (PTO-152)

3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

6)  Other: \_\_\_\_\_

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, and 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (U.S. Patent No. 3,609,116).

a. Claim 1 recites the following steps, which are disclosed by Thomas as noted.

**providing a sub-structure:** In column 7, line 26, reference is made to a lap joint between parts, the bottom one of which may be construed as the claimed sub-structure; also, in column 7, lines 37-38, reference is made to applying the shim material prior to mating of the parts—implying that there would be a sub-structure and another structure on top of it, as in a typical lap joint.

**positioning shim material on part of the sub-structure, said shim material comprising one of a film and sheet of preformed shim material:** In column 7, lines 36-38, it is disclosed that pre-formed strips (i.e. sheets) of shim material may be applied to a sub-structure prior to mating another part therewith.

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**curing the shim material:** In column 7, lines 28-29, it is disclosed that the moldable shim material is cured at room temperature or at elevated temperatures.

**machining the cured shim material to desired thickness:** In column 7, lines 35-43, it is disclosed that the shim material may be applied to the sub-structure prior to mating of the parts, and may be machined (inherently to “a desired thickness”).

**assembling an outer layer with the sub-structure such that the shim lies between the two:** In column 7, lines 35-43, it is disclosed that the parts are to be mated with the pre-formed shim material therebetween.

b. Claims 2 and 10-12: In column 2, lines 10-14, it is disclosed that the moldable shim material “cures at room temperature (75 °F)” and may be positioned “in either horizontal, vertical or overhead positions without excess flow.”

c. Claim 8: In column 7, lines 36-38, it is disclosed that the shim material may be pressed (i.e. pre-formed, or pre-cut) into strips, and then applied in that form prior to mating of the parts.

d. Claim 9: In column 7, line 27, it is disclosed that the shim material may be applied up to 0.125 inch (3.175 mm) thick, which falls within the claimed range of 0.4 to 4.0 mm.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (U.S. Patent No. 3,609,116).

Thomas teaches the invention essentially as claimed, as set forth above. However, Thomas fails to teach curing the shim material by exposure of the shim material to ultra violet light or radio frequency radiation.

The manner in which the shim material is cured is deemed to have been an obvious matter of choice, since applicant has not disclosed that the particular curing process solves any stated problem, and it appears that a simple room temperature or elevated temperature cure of the type taught by Thomas would provide equivalent results.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (U.S. Patent No. 3,609,116) over Applicant's admitted prior art (AAPA).

Thomas teaches all claimed steps, with the exceptions of (1) machining the shim material to a desired thickness based on the measured thickness of the mating parts, and (2) machining the shim material to different thicknesses at different locations on the sub-structure so that the parts conform to a desired profile.

AAPA is found in the specification on page 2, lines 3-7, where it is disclosed that shim material on a sub-structure is machined to a desired thickness prior to mating with a panel or skin,

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and that cured shim material may be machined to different thicknesses at different locations on the sub-structure so that the parts conform to a desired profile.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have machined the shim material of Thomas to a desired thickness based on the measured thickness of the mating parts, or to have machined the shim material to different thicknesses at different locations on the sub-structure, as taught by AAPA to ensure that the parts conform to a desired profile.

***Response to Arguments***

6. Applicant's arguments filed May 20, 2002, have been fully considered but they are not persuasive.

Applicant argues that Thomas fails to teach the specific sequence of steps recited. The examiner disagrees. Thomas teaches a pre-formed strip-type shim material which may be pressed in place prior to mating parts together (column 7, lines 36-38). Thomas also teaches that, when fully cured, the shim material may be considered a structural member and may be machined (column 7, lines 39-43). Therefore, in order to machine the shim material pressed in place prior to mating the parts together, the shim material would need to be cured, then machined to desired dimensions, then the parts mated. This is precisely what applicant is claiming.

Regarding the ultraviolet light or radiation cure limitations, applicant argues that the examiner's basis for rejection (a simple room temperature or elevated temperature cure of the

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type taught by Thomas would provide equivalent results) is mere speculation and finds no support in any reference of record. However, applicant has still not disclosed such a curing process as being critical to the overall shimming method. The examiner contends that the selection of such a curing process is merely a choice between well known curing processes, and is therefore an 'obvious matter of design choice.

### *Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner David Bryant whose telephone number is (703) 308-1859. The examiner can be reached Monday-Thursday from 6:30 AM to 5:00 PM.

Documents related to this application may be submitted by facsimile at any time. The examiner's RightFAX number is (703) 746-4213, while the official fax number for Group 3720 is

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(703) 305-3579. Applicant is reminded to clearly mark any document as "DRAFT" if it is not to be considered a formal response.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1148.



**DAVID BRYANT  
PRIMARY EXAMINER  
ART UNIT 3726**

June 27, 2002